

REMARKS

Claims 4-7, 10 and 14-26 were pending at the time of the Office Action, claims 1-3, 8, 9, 11-13, and 27-53 having been previously cancelled. All stand rejected. A new independent device claim 54 is presented.

Information Disclosure Statement

The applicant graciously notes the Examiner's review of the Information Disclosure Statement submitted 6 July 2006.

Claim rejections under 35 U.S.C. 102

The Examiner has rejected claims 4-7 and 14 as anticipated under 35 USC 102(e) as anticipated by US Patent 6,916,152 B2 to Keener ("Keener '152"). Applicant respectfully traverses.

Applicant considers the Examiner's rejection to be capricious and arbitrary, as the Examiner merely notes that Keener '152 at Fig. 9 "shows a sewage grinder pump including a grinder and 2 impellers." Claim 4 requires additional limitations that the Examiner has apparently disregarded.

Claim 4, unlike Keener '152, teaches a pump housing 40 that contains a first stage volute 55 and a second stage volute 56, the respective volutes connected by an inter-stage conduit 42. By doing this, the applicant has placed two centrifugal impellers 30, 32 in the same housing as a grinder 60 and on the same end of a motor shaft 24. Keener '152, by contrast, has two pump housings 82, 84, positioned at opposite ends of the shaft.

There are several advantages of the applicant's configuration over the prior art. One is that the placement of all of the rotating members on the same end of the motor shaft reduces the number of seals that are needed to prevent intrusion of sewage water into the motor housing. Of particular value is elimination of a shaft seal above the motor. Further, the use of a single pump housing facilitates field maintenance.

Accordingly, applicant believes that claim 4 is not anticipated by Keener '152 and is allowable. Further, applicant notes that claim 6 presents a limitation not shown in Keener '152, as the two centrifugal impellers are not "along the motor shaft *between* the motor and the grinder", as the motor is between the two impellers. Yet further, claim 14 is also allowable, as Keener '152 does not teach a discharge conduit that is monolithic with the motor housing. Keener '152 shows a discharge conduit 86 that is clearly a separate piece from motor housing 80.

Dependent claims 5-7, 10 and 14-20 are allowable as proper dependent claims of allowable claim 4.

Independent method claim 21 is allowable, since Keener '152 does not anticipate the sewage grinder pump of claim 4, and dependent method claim 22 is not anticipated, since Keener '152 lacks teaching of a discharge conduit that is monolithic with the motor housing. Dependent method claims 23 and 24 are allowable as proper dependents of either claim 21 or 22. Dependent method claims 25 and 26 are allowable as proper dependents of claim 21, and claim 26 is further allowable over Keener '152, since Keener '152 does not teach a sewage grinder pump where the first and second stage impellers are in proximity to each other on the motor shaft.

New independent device claim 54 is allowable over Keener '152 because Keener '152 fails to teach a single pump housing that comprises "an inlet; a first stage volute with an inlet and an discharge, the first stage volute inlet communicated to the inlet; an interstage conduit with an inlet and an outlet, the interstage conduit inlet communicated to the first stage volute discharge; a second stage volute with an inlet and a discharge, the second stage volute inlet communicated to the interstage conduit outlet; and an outlet, the outlet communicated to second stage volute discharge." Claim 54 differs from claim 4 in that it does not recite the grinder element.

Claim rejections under 35 U.S.C. 103

The Examiner has rejected claims 10 and 15-26 as obvious over Keener '152, as the additional claim limitations are obvious design choices once the basic apparatus is

US Ser. No 11/595,301
Response to Office Action of 25 Sept 2007

known. Applicant respectfully traverses, as the basic apparatus (claims 4-7 and 14) is not known and is allowable over the cited prior art.

Telephone inquiry to the undersigned in order to clarify or otherwise expedite prosecution of the present application is respectfully encouraged.

Respectfully submitted,

Date:15 October 2007

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